

ABSTRACT OF THE INVENTION

The present invention relates to an optical fiber having, at least, a structure for effectively restraining microbend loss from increasing. This optical fiber is an optical fiber suitable for a dispersion-flattened fiber, a dispersion-compensating fiber, and the like, and insured its single mode in a wavelength band in use. In particular, since the fiber diameter is 140  $\mu\text{m}$  or more, this optical fiber has a high rigidity, so that the increase in microbend loss is effectively suppressed, whereas the probability of the optical fiber breaking due to bending stresses is practically unproblematic since the fiber diameter is 200  $\mu\text{m}$  or less. Also, since this optical fiber has a larger mode field diameter, it lowers the optical energy density per unit cross-sectional area, thereby effectively restraining nonlinear optical phenomena from occurring.